

Service communication et presse

450 route des Chappes – CS 50193

06904 Biot - Sophia Antipolis cedex

Tél. : +33 (0)4 93 00 81 21

Laurence.Grammare@eurecom.fr



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PRESS RELEASE

EURECOM implements "CoronaCheck": the first fact-checking system for coronavirus statistical reporting

With the spread of the COVID-19 virus, there has been a spike in misinformation about its origin, diffusion and effects. Incorrect and misleading claims are widespread over social networks, but also by politicians and governments.

(https://en.wikipedia.org/wiki/Misinformation_related_to_the_2019%E2%80%9320_coronavirus_pandemic#Misinformation_by_governments).

Given the large number of incorrect claims on the Internet, human fact checkers have to identify them, collect the relevant data, and do the analysis to validate or dismiss a claim. Unfortunately, given the information overload on the Internet, we are now facing what the W.H.O. calls an "Infodemic" (<https://www.nytimes.com/2020/02/06/health/coronavirus-misinformation-social-media.html>), which makes it impossible for humans to check every claim manually.

The team of Prof. Papotti at EURECOM (France) and Prof. Trummer at Cornell University (USA) are working together to build a system that automatically verifies statistical claims about the coronavirus. This work is made public today with the release of CoronaCheck (<https://coronacheck.eurecom.fr/>), a website where for any given statistical claim, such as "On March 12, new cases increased only by 5% in USA.", the system is able to demonstrate on official data if it true or false.

Given a sentence, the systems uses text classifiers to build query fragments that are then executed over the underlying data sources. The outcome of the queries is used to automatically label the sentence as correct or false. The system already supports a large variety of claims over all countries affected by the virus, including claims about confirmed cases, recoveries, and deaths. Moreover, the system learns from users' feedback how to handle new kinds of claims and how to exploit new datasets. Data are collected every day from official sources, including WHO, CDC, ECDC, NHC, DXY, and local media reports.

"We invite everybody to use our system to increase the number of claims that we can automatically verify. Our goal is to keep the system free and open in order to support users, such as journalists, in the checking of statistical claims. We envision the adoption of CoronaCheck by social networks to automatically identify and check claims that are spread online and support them in the fight against online misinformation." said professor Paolo Papotti, head of the Information Quality group within EURECOM's department of Data Science.

The initiative is supported by a Google faculty research award and the French national research-funding agency (ANR). For further information, contact Paolo Papotti at (paolo.papotti@eurecom.fr)

Paolo Papotti is an Assistant Professor (Mdc) at EURECOM, France since 2017. He got his PhD from Roma Tre University (Italy) in 2007, and had research positions at the Qatar Computing Research Institute (Qatar) and Arizona State University (USA). His research is focused on data integration and information quality. He has authored more than 90 publications, and his work has been recognized with two "Best of the Conference" citations (SIGMOD 2009, VLDB 2016), a best demo award at SIGMOD 2015, and two Google Faculty Research Award (2016, 2020). He is associate editor for the ACM Journal of Data and Information Quality (JDIQ) and Proceedings of the VLDB Endowment Journal (PVLDB).

EURECOM key player in the AI ecosystem

EURECOM is a French engineering school (*Grande Ecole*) with a strong international perspective, it enjoys a worldwide reputation as a research center in digital sciences. Its cutting-edge research and technology is the result of the recruitment of international professors from a wide spectrum, as well on its reactivity, its expertise in interdisciplinary projects, and its multiple partnerships.

EURECOM is part of the Institut Mines-Télécom school group, and is a founding member of the SophiaTech Campus in Sophia Antipolis, the largest Science and Technology Information campus in the Alpes Maritimes. EURECOM is also a member of the Secured Communication Solutions (SCS) competitiveness cluster.

EURECOM's teaching and research activities are organized around three flourishing fields: Digital Security, Communication Systems, and Data Science.

Through its Data Science department, EURECOM brings in particular its world-renowned expertise and reputation in the fields of machine learning, multimodal processing and knowledge engineering that feed artificial intelligence systems, and positions itself as an example to follow for interaction with industry.

EURECOM contributions will focus mainly on the development of the fundamental methodologies of artificial intelligence, including key aspects such as uncertainty quantification, interpretability and explainability and algorithmic efficiency and scalability. Additionally, EURECOM will also contribute to the application domains behind 3IA, namely life/medical sciences, urban mobility and its services, autonomous vehicles and many more.

Contact : communication@eurecom.fr, WWW.EURECOM.FR